

Mr. John Perullo  
Midcorr Packaging, LLC  
54370 Smilax Road  
New Carlisle, Indiana 46552

Dear Mr. Perullo:

Re: Exempt Construction and Operation Status,  
141-13681-00198

The application from Midcorr Packaging, LLC, received on December 28, 2000, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following corrugated board operation, to be located at 54370 Smilax Road, New Carlisle, Indiana, is classified as exempt from air pollution permit requirements:

1. One (1) natural gas-fired boiler, designated as N.B. 8288, with a maximum heat input capacity of 14.288 mmBtu/hr and exhausts to a stack designated as S1.
2. One (1) corrugator paper operation.
3. One (1) boiler pretreatment system consisting of a reverse osmosis unit.
4. One (1) water storage tank.
5. One (1) scrap collector.
6. One (1) water surge tank.
7. One (1) corn starch mixing operation with a maximum corn starch throughput of 180 pounds per hour.

The following conditions shall be applicable:

1. Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:
  - (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.
2. Pursuant to 326 IAC 12, (40 CFR 60.40c, Subpart Dc), the owner or operator of each affected facility shall submit notification of the date of construction, anticipated startup and actual startup, as provided by 40 CFR Part 60.7. The notification shall include but not limited to the following:
  - (1) The design heat input capacity of the facility and the identification of the fuels to be combusted,

The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day.

3. Pursuant to 326 IAC 6-1-2 (Nonattainment area particulate limitations: specified), no person shall operate a fossil fuel combustion steam generator (any furnace or boiler used in the process of burning solid, liquid, or gaseous fuel or any combination thereof for the purpose of producing steam by heat transfer) so as to discharge or cause to be discharged any gases unless such gases are limited to a particulate matter content of no greater than 0.63 grams per million calories (0.35 pounds per million Btu) for solid fuel fired generators of equal to or greater than 6.3 but less than or equal to sixty-three million (63,000,000) kcal per hour heat input (twenty-five (25) but less than or equal to two hundred fifty (250) million Btu).

This exemption is the first air approval issued to this source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

NLJ

cc: File - St. Joseph County  
St. Joseph County Health Department  
Air Compliance - Rick Reynolds  
Northern Regional Office  
Permit Tracking - Janet Mobley  
Technical Support and Modeling - Michele Boner  
Compliance Data Section - Karen Nowak

## Indiana Department of Environmental Management Office of Air Quality

### Technical Support Document (TSD) for an Exemption

#### Source Background and Description

Source Name: Midcorr Packaging, LLC  
Source Location: 54370 Smilax Road, New Carlisle, Indiana 46552  
County: St. Joseph  
SIC Code: 2679  
Operation Permit No.: 141-13681-00198  
Permit Reviewer: Nysa L. James

The Office of Air Quality (OAQ) has reviewed an application from Midcorr Packaging, LLC relating to the construction and operation of a corrugated board operation.

#### Emission Units and Pollution Control Equipment

The source consists of the following emission units and pollution control devices:

- (a) One (1) natural gas-fired boiler, designated as N.B. 8288, with a maximum heat input capacity of 14.288 mmBtu/hr and exhausts to a stack designated as S1.
- (b) One (1) corrugator paper operation.
- (c) One (1) boiler pretreatment system consisting of a reverse osmosis unit.
- (d) One (1) water storage tank.
- (e) One (1) scrap collector.
- (f) One (1) water surge tank.
- (g) One (1) corn starch mixing operation with a maximum corn starch throughput of 180 pounds per hour.

#### Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
S1	boiler	32	18	3000	410

#### Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on December 28, 2000, with additional information received on February 1, 2001.

### Emission Calculations

See Appendix A of this document for detailed emissions calculations (Page 1 of 1).

The corrugator operation, boiler pretreatment system, water storage tank, corn starch mixing operation, scrap collector and water surge tank have no emissions,

The boiler emits negligible HAPs emissions per Appendix A, page 1 of 1.

### Potential To Emit Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	0.1
PM-10	0.5
SO <sub>2</sub>	0.0
VOC	0.3
CO	5.3
NO <sub>x</sub>	3.1

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of NO<sub>x</sub> and CO are less than the levels listed in 326 IAC 2-1.1-3(d)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3.

### County Attainment Status

The source is located in St. Joseph County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	maintenance
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. St. Joseph County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

- (b) St. Joseph County has been classified as attainment or unclassifiable for PM<sub>10</sub>, CO and SO<sub>2</sub>. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

### Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	0.1
PM10	0.5
SO <sub>2</sub>	0.0
VOC	0.3
CO	5.3
NO <sub>x</sub>	3.1
Combination HAPs	0.118

- (a) This new source is **not** a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

### Part 70 Permit Determination

#### 326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

### Federal Rule Applicability

- (a) The existing natural gas-fired boiler is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c, Subpart Dc) because the boiler was constructed after June 9, 1989 and the heat input capacity is greater than 10 mmBtu/hr. The owner or operator of each affected facility shall submit notification of the date of construction, anticipated startup and actual startup, as provided by 40 CFR Part 60.7. The notification shall include but not limited to the following:

- (1) The design heat input capacity of the facility and the identification of the fuels to be combusted,

The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each month.

- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

### **State Rule Applicability - Entire Source**

#### **326 IAC 2-6 (Emission Reporting):**

This source is located in St. Joseph County and the potential to emit VOC and NOx is less than ten (10) tons per year. Therefore, 326 IAC 2-6 does not apply.

#### **326 IAC 5-1 (Visible Emissions Limitations):**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

### **State Rule Applicability - Natural Gas-Fired Boiler**

#### **326 IAC 6-1-2 (Nonattainment area particulate limitations: specified):**

Since this source is located in St. Joseph's county, pursuant to 326 IAC 6-1-1, the boiler is subject the requirements outlined in 326 IAC 6-1-2.

Pursuant to 326 IAC 6-1-2 (Nonattainment area particulate limitations: specified), no person shall operate a fossil fuel combustion steam generator (any furnace or boiler used in the process of burning solid, liquid, or gaseous fuel or any combination thereof for the purpose of producing steam by heat transfer) so as to discharge or cause to be discharged any gases unless such gases are limited to a particulate matter content of no greater than 0.63 grams per million calories (0.35 pounds per million Btu) for solid fuel fired generators of equal to or greater than 6.3 but less than or equal to sixty-three million (63,000,000) kcal per hour heat input (twenty-five (25) but less than or equal to two hundred fifty (250) million Btu).

No other 326 IAC 6 rules apply.

326 IAC 8-1-6 (New facilities; general reduction requirements) does not apply to the boilers because the potential to emit of VOC of each boiler is less than 25 tons per year.

No other 326 IAC 8 rules apply.

### **Conclusion**

The construction and operation of this corrugated board operation shall be subject to the conditions of the attached Exemption **141-13681-00198**.

## Appendix A: Emissions Calculations

### Natural Gas Combustion Only

MM BTU/HR <100

Small Industrial Boiler

Company Name: Midcorr Packaging, LLC

Address City IN Zip: 54370 Smilax Road, New Carlisle, IN 46552

CP: 141-16381

Plt ID: 141-00198

Reviewer: Nysa L. James

Date: 02-06-2001

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

14.3

125.2

#### Pollutant

Emission Factor in lb/MMCF	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	50.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.1	0.5	0.0	3.1	0.3	5.3

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

### Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.

#### HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.314E-04	7.510E-05	4.694E-03	1.126E-01	2.128E-04

#### HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	3.129E-05	6.884E-05	8.761E-05	2.378E-05	1.314E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.